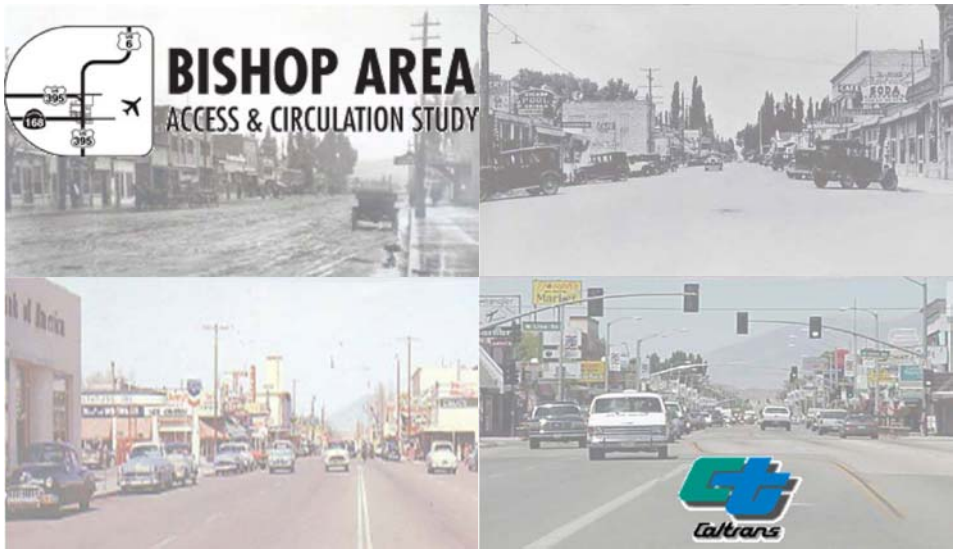
META RESEARCH

# BISHOP AREA ACCESS AND CIRCULATION STUDY

*Public Opinion Survey*

(JANUARY 2004)




## SUMMARY & REPORT OF FINDINGS

**SUBMITTED BY:**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# Bishop Area Access and Circulation Study
# For
# The California Department of Transportation, District 9
# January 2004

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META RESEARCH

# I. Executive Summary

## *Overview*

Meta Research was retained by Jones and Stokes on behalf of the California Department of Transportation to conduct and analyze a survey of the residents of the area of Bishop, CA. The study had multiple objectives, with the primary objective being to gather public opinion data of transportation issues in the Bishop area. Interviews were conducted between December 15 and December 22, 2003, with 407 residents of the Bishop area.

The study used a random-digit-dialing telephone sample and was conducted using a Computer Aided Telephone Interviewing (CATI) System to maximize accuracy and handle complex skip patterns.

Meta Research staff assigned to this project were Stephen Murrill, President, Shannon Wheelan, Research Analyst, and Patricia Jenkinson, Senior Research Consultant.

## *Salient Results*

In reviewing the detailed findings of the survey, a number of salient results emerged and are highlighted below**.**

- Residents agreed that there are important transportation policy issues in the Bishop area. There was no consensus on a single, most important transportation issue or solution. Results showed that several options were supported but the community is divided on which issues and solutions to pursue. The survey did not conclusively point to one solution but created areas to explore with local governments and public stakeholders to identify workable solutions.
- When asked top of mind, the most frequent response for the number one transportation issue was local transit/bus service, followed by too many trucks on Main St/Highway 395, then congestion on Main St/Highway 395.
- When asked about the seriousness (very or somewhat serious) of transportation issues, congestion on Main St/Highway 395 was the most frequent answer, followed by too many trucks on Main St/Highway 395, then lack of passenger air service.
- Opinions of major transportation issues tended to vary by age, income, race/ethnicity, and those who drive alone or carpool. Older residents were more concerned with Main Street congestion, too many trucks on Main Street, and lack of passenger air service. Middle-aged respondents focused on inadequate parking and transit/bus service. Younger residents were concerned with getting around town as a pedestrian or by bicycle and transit/bus service. Those in higher income brackets were more concerned with getting around town as a pedestrian or by bicycle. Middle-income respondents focused on Main Street congestion while those in lower income brackets were concerned with inadequate parking and transit/bus service. Hispanic respondents focused on getting around town as a pedestrian. Those who typically

carpool were more concerned with the ability to safely ride a bike around town and transit/bus service.

- Solutions to local transportation issues mentioned most often were a bypass, creating a truck route, improving the local transit/bus service, and bringing in passenger air service.
- Solutions that had the strongest support (either very supportive or somewhat supportive) were constructing an alternate route for truck traffic, followed by improving parking throughout the Bishop area, and then improving the options for bike riding. Making no improvements and constructing an alternate route for through traffic were strongly opposed.
- Opinions regarding solutions to transportation issues varied by length of time living in the Bishop Area, age, area of residence, race/ethnicity, and those who drive alone or carpool. Those who have lived in the area for twenty years or more favored a bypass. Those who have lived in the area for eleven to twenty years favored improving public transportation and respondents who have lived in the area for five to ten years favored improving parking and improving the options for riding a bicycle or getting around as a pedestrian. Older interviewees preferred a bypass, middle-aged residents preferred improving parking and public transportation, and younger interviewees favored improving the options for riding a bicycle or getting around as a pedestrian. West Bishop residents favored a bypass. Hispanic respondents preferred improving the options for riding a bicycle and getting around as a pedestrian. Those who typically carpool preferred improving the options for riding a bicycle.
- When asked for their level of support for improving the movement of pedestrian travel downtown if it required decreasing traffic flow, most respondents expressed some degree of support. However, businesses located on Highway 395/Main St/North Sierra Highway were more likely to oppose this action when compared to businesses in other locations in the Bishop area.
- Over half of all respondents said that truck traffic contributes “a lot” to downtown congestion and transportation issues; only 8 percent said that truck traffic does not contribute to congestion.
- The vast majority of respondents believe that out-of-town travelers are very important to the economic livelihood of the Bishop area (82 percent). However, most respondents felt that out-of-town travelers also contribute “a lot” to transportation issues and congestion in the downtown area.
- While most residents agreed that there should be <u>some</u> weight given to the opinions of out-of-town travelers in the decision-making process on highway transportation issues, most felt it should be limited
- Almost all residents (94 percent) use an automobile as their primary mode of transportation and over half usually drive alone. Older residents were more likely to drive alone, while younger respondents were more likely to carpool or drive with others. Those who live in Bishop were more likely than those who live in all other areas to use other modes of transportation (besides an automobile).
- Most people (26 percent) travel on Main St/Highway 395 two one-way trips per weekday, followed by 1 one-way trip as the second highest percentage (data was recorded as actual number of one-way trips). When the number of trips were

grouped (as shown in the frequency questionnaire), the highest percentage was in the category of 1 to 4 one-way trips.

- Most businesses (60 percent) reported that their business is not dependent on out-of-town travelers and most felt that altering the flow of traffic through downtown would have no effect on their business. However, a larger sample size is needed (from a separate survey of local businesses) to facilitate results that can be generalized to the business community.
- Question fourteen, which asks about business dependence on out-of-town travelers should be split into two questions (in a separate business survey): dependence on out-of-town travelers and dependence on truck traffic, since creating an alternate route specifically for trucks is a favored solution to transportation issues in the Bishop area.
- While businesses on Highway 395 did not support altering traffic downtown to improve pedestrian travel (question 6), they may be supportive of this action if it involved rerouting truck traffic only. Therefore, it is recommended to create a question (in a separate business survey) on pedestrian travel if it involved diverting only truck traffic and another question on diverting all through traffic from out-of-town travelers.
- Most residents have lived in the Bishop area for 11 years or more. Most respondents have had some college or have earned a college degree. Almost half of the sample was aged 55 or older. The highest percentage (38 percent) of respondents lived in areas outside of Bishop, West Bishop, or the Bishop Paiute reservation, but 26 percent lived in Bishop and another 26 percent lived in West Bishop.

# II. Research Methods

## *Objectives*

The primary survey objective was to gather the public's opinions regarding transportation issues in the Bishop area. Specific study objectives were as follows:

- Assess the public awareness/opinion of transportation issues and solutions in the Bishop area, concentrating on Main Street/Highway 395.
- Determine local residents' opinions of out-of-town travelers and their contribution to the local economy and to transportation issues.
- Assess the dependence of local businesses on out-of-town travelers and the potential effects on their business if traffic was diverted from downtown.
- Identify typical transportation habits of local residents.
- Ensure that business owners or managers, Hispanic respondents, and Native American respondents were accurately represented in the sample.

## *Research Method*

This project was conducted as a telephone survey of Bishop, California area residents (households). Based upon the demographics of the area, a questionnaire was developed for both English-speaking and Spanish-speaking respondents. However, 100 percent of the interviews were conducted in English, as no Spanish translation was needed.

## *Field Dates*

The survey was pre-tested on Monday, December 15, 2003. No major changes were necessary, so fieldwork began in earnest and concluded on Monday, December 22, 2003. All calls were made Monday–Friday evenings between the hours of 4:30 p.m. and 9:00 p.m. and Saturday between the hours of 10:00 a.m. and 6:00 p.m.

## *Questionnaire*

The questionnaire for this project was designed based upon objectives and feedback provided by the client. The questionnaire was composed of 28 distinct questions (or data

points).[1] Several of the questions were asked in a "true" open-ended format and were coded into similar responses for analysis. Some of the questions had an "other" category that required extensive content analysis for recoding. The questionnaire averaged 10.45 minutes to administer.

## *Sample Design*

A total of 407 adult residents of the Bishop area were interviewed for this project from area code 760 and telephone prefixes of 872, 873, and 387. Residents were screened by which community they live in, in the Bishop area. Those whose residence could not be identified were not interviewed. The communities that were listed on the questionnaire, as provided by the client, were the Bishop Paiute Reservation, West Bishop, Dixon Lane-Meadow Creek, Rocking K, Rocking W, Starlight/Aspendale, Wilkerson, Highlands/Glenwood Mobile Home Park, Roundvalley/Mustang Mesa/Paradise, Bishop, and other areas of Inyo County within the study boundaries.

While the actual number of respondents interviewed was 416, nine interviews were eliminated from the dataset based on residence outside the study area. Thirty-four respondents indicated their residence as "unincorporated area of Inyo County" and gave a verbatim description of their residence (if they did not fall within one of the pre-developed categories). Caltrans reviewed the thirty-four responses and determined if they live within the study area and Meta Research used a reverse phone number lookup to obtain addresses of those who were listed (Meta's commitment to respondent confidentiality was upheld). Next, those addresses were mapped using www.mapquest.com and the location was compared to the BAACS Study Area map from the Caltrans brochure to determine if those residences fell within the study area boundaries.

A strong effort was made to ensure that business owners or managers, Hispanic respondents, and Native American respondents were adequately represented in the

[1] The questionnaire numbering is deceiving when determining number of questions. Some questions had a "question stem" to set up the question, followed by multiple subsequent questions (numbered a, b, c, etc.). Not all questions were asked of all respondents. Some respondents skipped questions based upon their answers to a previous question (branched). Other questions were CATI calculated for use in analysis and were not asked of any respondents.

sample. The target for business owners or managers was calculated by the client and was to be 10 percent of the sample or 40 businesses. The actual percent of businesses in the sample was 16.7 (a sample size of 68). A separate survey of business owners or managers is recommended to provide more statistical confidence in determining the feelings of transportation issues in the Bishop area by businesses.

The target for Hispanic respondents was 28. This was calculated using Census 2000 data for census tracts one, two, three, and four in Inyo County, which fell geographically within the study boundaries. The dataset used was Table H7 from Summary File 1, "Hispanic or Latino Householder by Race of Householder" from the universe of occupied housing units. The total population of householders in census tracts 1-4 is 5,172, of which 366 are Hispanic (of any race). Therefore, the total percentage of Hispanic householders in the population is 7 percent. Seven percent of the sample size (400) yields a target of 28 respondents needed. The actual percentage of Hispanic respondents in the sample was 6.6 (a sample size of 27). Census data by households was used rather than population totals for the Bishop area because the unit of analysis for this study is household.

The target for Native American respondents was 32. This was calculated using Census 2000 data for census tracts one, two, three, and four in Inyo County, which fell geographically within the study boundaries. The dataset used was Table H6 from Summary File 1, "Race of Householder" from the universe of occupied housing units. The total population of householders in census tracts 1-4 is 5,172, of which 411 are Native American. Therefore, the total percentage of Native American householders in the population is 8 percent. Eight percent of the sample size (400) yields a target of 32 respondents needed. The actual percentage of Native American respondents in the sample was 7.6 (a sample size of 31). Census data by households was used rather than population totals for the Bishop area because the unit of analysis for this study is household.

A sample size of 400 yields a sampling error of +/-4.9% (at the 95% confidence level). This means that one can be 95 percent sure that the true population parameters are within +/- 4.9% of the sample statistics reported in this summary. As an example, if a response category to a question was chosen by 50 percent of respondents, it would be

95 percent sure that the true parameters in the population would be between 45.1 percent and 54.9 percent (+/- 4.9%). This confidence, however, refers only to sampling errors. Non-sampling errors were minimized by careful attention to a variety of methodological controls to ensure the quality of the resulting survey data. Meta's procedural and statistical controls included extensive interviewer training and on-site supervision of interviews. Branching and other sources of measurement error were controlled through the use of a computer-assisted telephone interviewing (CATI) system. For a complete description of research methods, please consult the Methods portion of the statistical report.

To be eligible for the survey, respondents had to be an adult of a household and reside in one of the communities listed on the questionnaire. The incidence of qualified respondents was 94 percent. This number is the percentage of those who were qualified to complete the survey after the screening questions were asked. The telephone number reached had to be a residential number, including businesses (who were asked if they were a business owner or manager later on in the survey).

The sampling frame for this project was a random-digit-dialing telephone sample of the last four digits of the telephone number purchased from Scientific Telephone Samples (STS), based upon area code 760 and telephone prefix 872, 873, and 387, provided by the client. To ensure that harder-to-reach residents were also included in the sample, each telephone number was called an average of four times (some households were attempted five times) or until the number could no longer be called due to the following reasons:

1) An interview was completed with a qualified respondent.
2) A qualified respondent refused to grant an interview.
3) The respondent was "screened out" of the survey because the household was not qualified to respond (e.g. was not a resident of one of the communities within the study area, etc.).
4) Only a partial interview was achieved (the respondent could or would not complete the entire survey).
5) The telephone number was inaccurate (e.g. disconnected, fax number, etc.).
6) A qualified respondent was not available during the scheduled fieldwork (e.g. on vacation during entire fieldwork).

## *Data Analysis*

Meta tabulated responses using univariate and bivariate methods. Statistical tools varied depending upon the type of variable analyzed. Meta calculated frequency counts and frequency percentages. Unless otherwise noted, frequency percentages reported in this document represent *adjusted* frequencies, meaning that percentages have been adjusted to exclude any non-responses (refusals to answer the question) or non-qualified responses (questions not asked due to answers to previous questions).

*Notes on descriptive statistics used:*

1. The mean, median, and mode are measurements of central tendency. A mean indicates the mathematical average of all respondents. For instance, on the variable "seriousness of local transportation issues", a mean of 3 indicates that the average of all responses is 3, or “very serious” (on a three-point scale- not serious, somewhat serious, or very serious). The median is the midpoint answer of all respondents. On the same variable "seriousness of local transportation issues", a median of 2 suggests that half of the respondents gave a rating higher than 2 and the other half gave a rating lower than 2 (somewhat serious). The mode is the answer chose most often for that particular question (the highest percentage). On the variable "seriousness of local transportation issues", a mode of 2 signifies that the answer chose most often among all respondents was 2, or “somewhat serious”.

2. Only variables whose measurement of central tendency has conceptual meaning are included for calculation in the following pages. For instance, if the mean rating of a question based on that same three-point scale is 3, this indicates that the average of all ratings on this question is 3 or "very serious". However, the mean rating of a question with qualitative responses or categories that cannot logically be ordered, such as, "What is the number one transportation issue in the Bishop area?” would indicate, for example, the average between "congestion on Main St/Highway 395" and "transit/bus service". This average would not be meaningful conceptually and therefore this type of variable is excluded from analysis of central tendency.

Statistical significance within crosstabulation tables was calculated using chi-square ($\chi^2$) statistics. For a chi-square to be statistically significant, the “Asymp. Sig.” value (p-value) from the SPSS output must be less than 0.05 (95% confidence level). When statistical significance is found, this means that percentages across the rows in the crosstab table are statically significantly different from each other, meaning that the two variables are related in the “population.” Strength of association was calculated using phi coefficients ($\Phi$). The phi coefficient can be either positive or negative and ranges from 0 to 1.0; the

higher the number, the stronger the relationship between the two variables. A complete statistical report, including frequencies, central tendency, and crosstabs are under a separate cover.

### *Caveat*

The sole purpose of this report is to provide a collection and categorization of public opinion data. Meta intends no endorsement or criticism of the California Department of Transportation, their policies, or staff. The client shall be solely responsible for any modifications, revisions, or further disclosure/distribution of this report.

## III. Detailed Findings

This portion of the summary is dedicated to providing the study results. This summary is organized by topic, not necessarily by order of questions addressed in the survey instrument. In the interest of brevity, this report *highlights* the study findings, rather than summarizing data of all survey response categories in narrative form. Tables and graphs are used to aid in comparison and to reduce the reliance upon text narration. Further, only notable differences among demographic groups are discussed (only statistically significant chi-square results are reported).

### *Sample Demographics*

This section of the report specifies some of the demographic characteristics of the total sample. The sample consisted of respondents who represent a population very familiar with the Bishop area in terms of number of years lived there, with the overwhelming majority of respondents living in the area for 11 years or more (73 percent).

The Bishop area appears to be populated with educated residents. About two in five (44 percent) reported having earned a college degree and 36 percent reported having had some college or trade/vocational school education.

The majority of Bishop Area residents interviewed were of older ages. Close to half of the respondents (46 percent) were over 55 years of age. Thirty eight percent were between the ages of 35 and 54. Both the mean and median were 45-54 years old.

*Table 1: Sample Demographics by Percent**

| Demographic Variable | Total Pop. (%) |
|---|---|
| ***Length of Residency*** | |
| 10 years or less | 27% |
| 11+ years | 73 |
| ***Education*** | |
| High school or less | 22 |
| Some college/Vocational/Trade | 36 |
| College degree | 41 |
| ***Age*** | |
| 18-34 | 16 |
| 35-54 | 38 |
| 55+ | 46 |
| ***Ethnicity*** | |
| Caucasian | 81 |
| American Indian | 8 |
| Hispanic | 7 |
| Other | 2 |
| ***Income (2002)*** | |
| Less than $25,000 | 21 |
| $25,000 to $74,999 | 52 |
| $75,000 or more | 18 |
| ***Gender*** | |
| Female | 55 |
| Male | 46 |
| ***Businesses*** | |
| Owners/Managers | 17 |
| ***Community of Residence*** | |
| Bishop | 26 |
| West Bishop | 26 |
| Bishop Paiute Reservation | 9 |
| All Others | 38 |

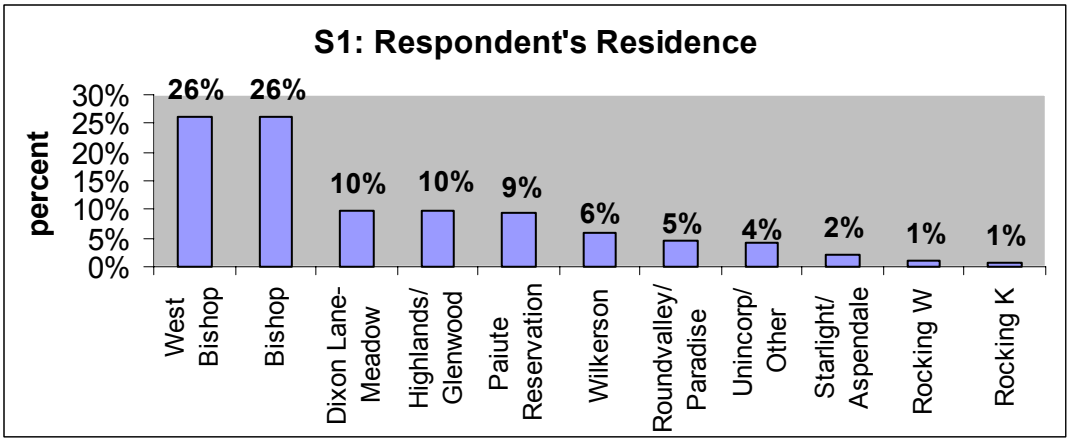
** Totals may not sum to 100 percent due to rounding and not including "undecided."*

About four in five respondents were Caucasian in ethnicity (81 percent). As previously stated, a concerted effort was made to interview a representative number of Hispanic and Native American respondents for this survey. Native Americans composed 8 percent of the sample, followed by Hispanic participants at 7 percent.

The majority of interviewees (52 percent) earned between $25,000 and $74,999 in 2002, followed by 21 percent of respondents reporting an income of less than $25,000. The mean and median were $35,000 to $49,999.

The sample of Bishop Area residents was comprised of 55 percent female and 46 percent male[2].

About two in five respondents (38 percent) lived in communities outside Bishop, West Bishop, or the Bishop Paiute Reservation. Twenty six percent of the sample reported Bishop as their residence and another 26 percent reported West Bishop as their residence.




## *Business Demographics*

As previously shown in table 1, 17 percent of respondents were owners or managers of a business located in the Bishop area. Those aged 35 to 54 and those who were in the $75,000 income category were more likely to be business owners when compared to

[2] No targets were established for gender.

other age and income groups as shown by a chi-square test in the crosstabulation tables.

The type of business that was the majority in the sample was “other type of business” (54 percent), followed by “professional services” (18 percent), then “other retail” at 13 percent. If a follow-up business survey is conducted, it should be more specific about identifying business types in order to provide a clear picture of the type of business in the Bishop area.

Most of the businesses surveyed were located on or near Highway 395. About one in four (26 percent) were on Highway 395/Main Street/North Sierra Highway, and a similar percentage (28 percent) were within two blocks of Highway 395, while 46 percent of businesses were located “somewhere else in the Bishop area.” Those who were in the $35,000 to $49,999 and $50,000 to $74,999 income groups were more likely to have a business on Highway 395/Main St/North Sierra Highway when compared to other income groups and businesses in other locations as shown by a chi-square test in the crosstabulation tables. This may indicate that business on Main St/Highway 395 encounter higher revenues than businesses in other locations.

## *Transportation Issues*

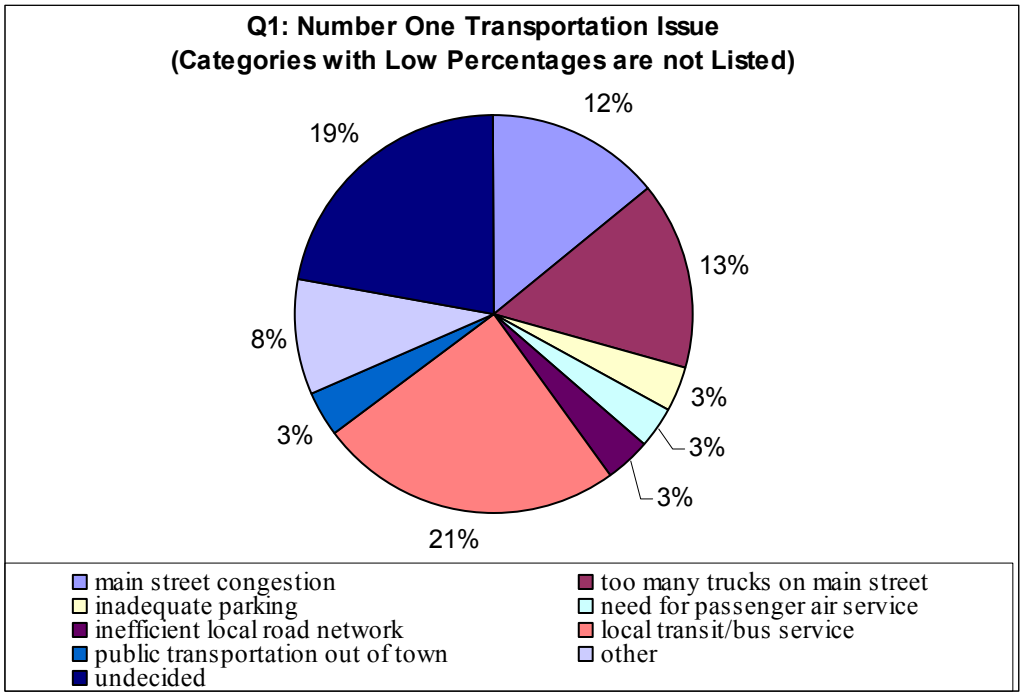
In order to measure Bishop residents’ attitudes about transportation-related issues, survey respondents were asked a series of questions about critical transportation issues and potential solutions.

### Public Perception of Transportation Issues

To gauge the perceived seriousness of transportation issues in the Bishop area, respondents were asked to identify the number one transportation issue. This was asked as open-ended and responses were placed into pre-coded categories. Responses of “other” were analyzed to identify relevant categories that were not previously included in the questionnaire.

The transportation issue mentioned most frequently was “local transit/bus service” (21 percent), followed by “too many trucks on Main Street/Highway 395” (13 percent), and

"congestion on Main Street/Highway 395" with 12 percent. Combined, one in four respondents mentioned trucks or congestion on Main Street (25 percent). Almost one in four (19 percent) were undecided as to the number one transportation issue in the Bishop area. Eight percent mentioned an issue not pre-coded. These "other" responses were analyzed and new categories were added to the pre-developed categories. For specific responses remaining in the "other" category after review and recoding, please refer to the frequency tables included in the statistical report (in a separate document).

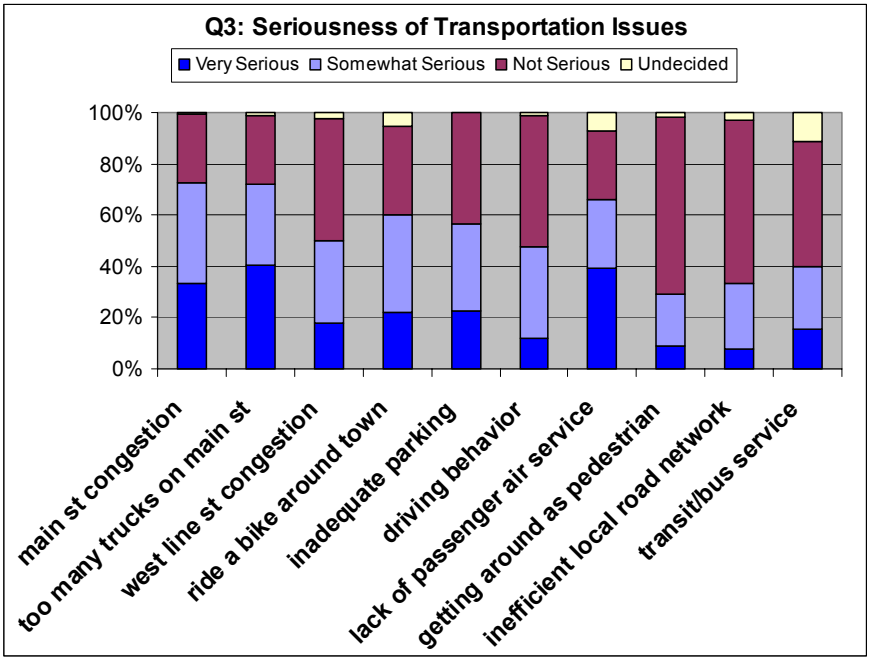



Opinions of major transportation issues tended to vary by age and income. Older residents (55 or older) were more concerned with general Main Street congestion, as were those in the $35,000 to $49,999 income bracket. Residents aged 18-34 and those with incomes at the $50,000 to $74,999 level focused on "getting around town as a pedestrian or by bicycle" as key transportation issues. Those aged 35-54 were more likely to report "inadequate parking" and "local transit/bus service" as the number one transportation issues. Those in the less than $25,000 group were more concerned with "inadequate parking" and were also far more likely to be undecided. Respondents in the $25,000 to $34,999 income category focused on "local transit/bus service" as the number one transportation issue.

Respondents were also asked a prompted question rating the seriousness of local transportation issues as very serious, somewhat serious, or not serious. Issues tested were:

- Congestion on Main Street/Highway 395,
- Too many trucks on Main Street/Highway 395,
- Congestion on West Line Street/Highway 168,
- The ability to safely ride a bike around town,
- Inadequate parking,
- Driving behavior,
- Lack of passenger air service,
- Getting around town as a pedestrian,
- Inefficient local road network, and
- Transit/bus service.

The transportation issue with the highest percentage of respondents classifying it as "very serious" was "too many trucks on Main Street/Highway 395" (41 percent). Running a close second was "lack of passenger air service" (39 percent), and the third highest percentage was 33 percent with "congestion on Main Street/Highway 395."




The issue of least concern was "getting around town as a pedestrian," with close to seven in ten respondents (69 percent) classifying it as "not serious." Other issues not

perceived as serious were “inefficient local road network” and “driving behavior” (64 percent and 51 percent, respectively).

When “very serious” and “somewhat serious” were combined to determine if the issue was either serious or not, “congestion on Main Street/Highway 395” and “too many trucks on Main Street/Highway 395” were considered a serious issue by about seven in ten respondents (73 percent and 72 percent, respectively). “Lack of passenger air service” was considered a serious issue by about three in five interviewees (66 percent).

*Table 2: Seriousness of Various Transportation Issues*
*(Combined Very and Somewhat Serious)*

| Transportation Issue Read to Respondent | A Serious Issue (%) |
|---|---|
| 1) Congestion on Main Street/Highway 395 | 73% |
| 2) Too Many Trucks on Main Street/Highway 395 | 72 |
| 3) Lack of Passenger Air Service | 66 |
| 4) Ability to Safely Ride a Bike Around Town | 60 |
| 5) Inadequate Parking | 57 |
| 6) Congestion on West Line Street/Highway 168 | 50 |
| 7) Driving Behavior | 48 |
| 8) Transit/Bus Service | 40 |
| 9) Inefficient Local Road Network | 33 |
| 10) Getting Around Town As a Pedestrian | 29 |

The average of all responses (mean) and the median (midpoint of all responses) for congestion on Main Street, too many trucks on Main Street, ability to safely ride a bike around town, inadequate parking, and lack of a passenger air service were “somewhat serious.”

The average response for driving behavior and transit/bus service was “somewhat serious” but the median was “not serious.” The average for congestion on West Line Street was “not serious” but the median was “somewhat serious.” As a result, the only

issues classified as “not serious” when measured by both the mean and median are getting around town as a pedestrian and inefficient local road network.

Younger residents (18-34) were less concerned about the congestion on Main Street/Highway 395, having too many trucks on Main Street/Highway 395, and the lack of passenger air service while concern for these issues was greatest among older respondents (55+). However, younger residents were more concerned with the local transit/bus service than older residents were.

Females were more concerned with having too many trucks on Main St/Highway 395, inadequate parking, transit/bus service, and the lack of passenger air service than were males.

Hispanic/Chicano/Latino residents were more likely to feel that getting around town as a pedestrian was a serious issue.

Those who drive with others/carpool (Q17) were more likely to be concerned with the “ability to safely ride a bike around town” and the local “transit/bus service” than those who drive alone.

Residents who do not drive on Main St/Highway 395 (reported 0 one-way trips in Q19) were more likely to be interested in the ability to safely ride a bike around town when compared to those who do typically drive on Main St/Highway 395.

When comparing the two questions asking about transportation issues, one open ended, one a scale based on the rating of seriousness, the top transportation issues do not coincide. When asked in an open-ended format, the top issues were local transit/bus service, too many trucks on Main Street/Highway 395, and congestion on Main Street/Highway 395.

However, when tested directly, “too many trucks on Main Street/Highway 395” was rated as very serious by the highest percentage of people, followed by “lack of passenger air service,” then “congestion on Main Street/Highway 395.” When “somewhat serious” and “very serious” were combined, the top issues of concern were congestion on Main

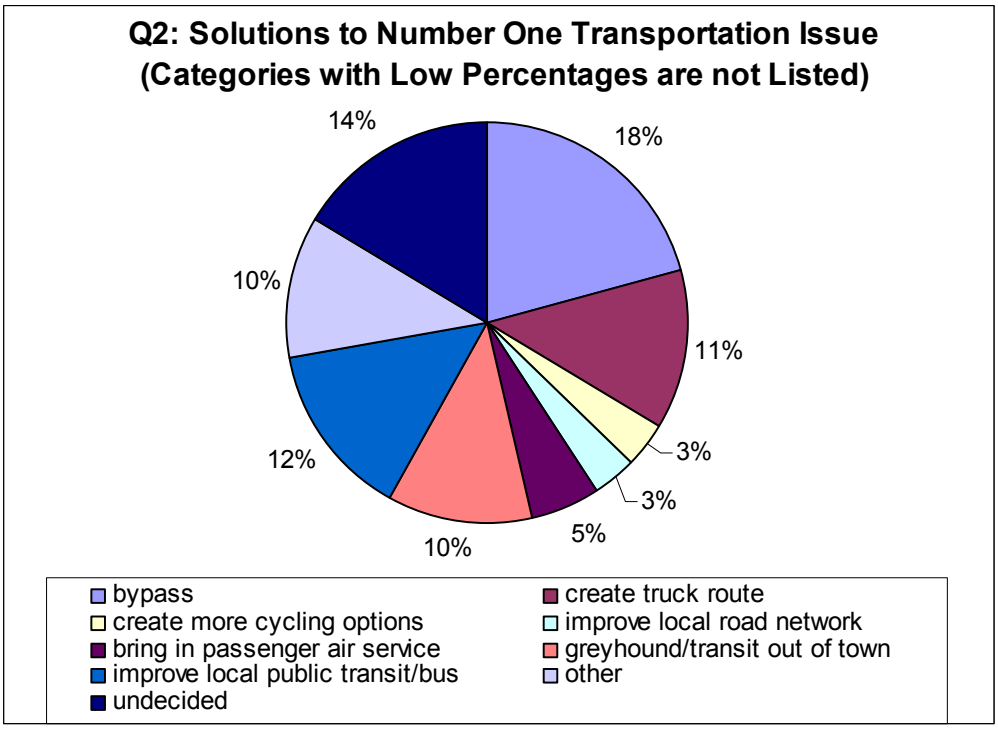
Street/Highway 395, too many trucks on Main Street/Highway 395, and lack of passenger air service.

The differences in these results could be due to the nature of the questions; one was asked open-ended (first thing that comes to mind), the other was asked as a scale and the respondent was given the list of transportation issues. In addition, the two questions asked about transportation issues in a slightly different way: the first – the number one transportation issue in the Bishop area, the other – the seriousness of each given issue. Yet another explanation is the use of the word "transportation" (which was not defined) in the open-ended question. People may be thinking about transportation in general, meaning modes of transportation (e.g. automobile, bus) whereas concepts like congestion may be "traffic specific" and may not come to mind as a "transportation issue." Nevertheless, both measures are valid and both results should be considered. Common results that showed up between the two questions were congestion on Main Street/Highway 395 and too many trucks on Main Street/Highway 395. Local transit/bus service and lack of passenger air service are also areas that should be explored.

## Public Perception of Solutions to Transportation Issues

After being asked what the number one transportation issue is in the Bishop area (open ended), respondents were then asked what solution they would suggest. This was asked as open-ended and responses were placed into pre-coded categories. Responses of "other" were analyzed to identify relevant categories not previously included in the questionnaire.

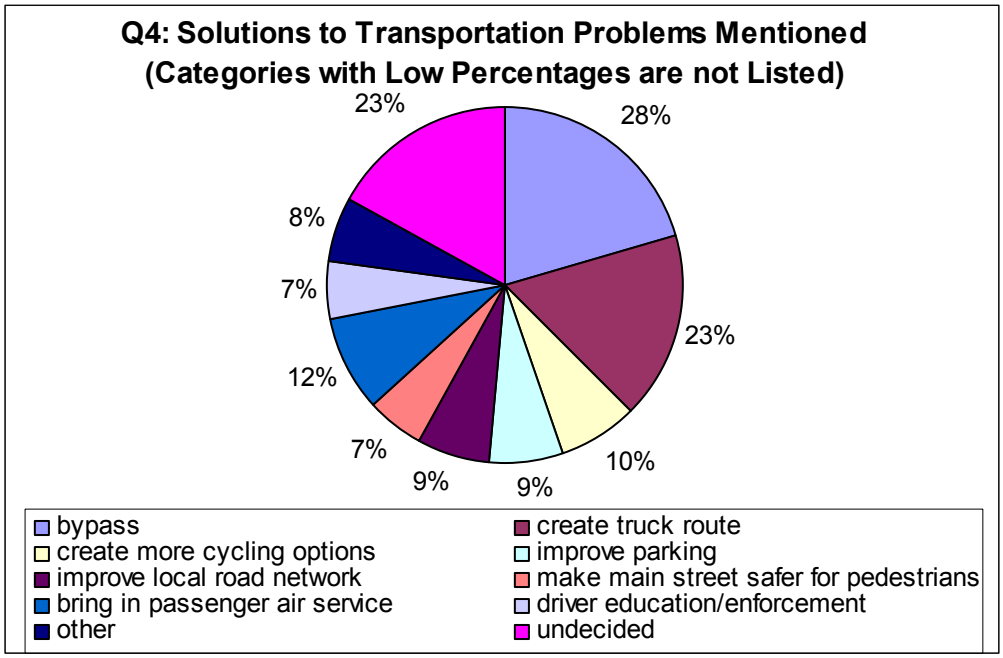
The solution mentioned most often was "bypass" (any type) (18 percent), followed by "improve local public transit/bus service" (12 percent), and "create truck route" with 11 percent. Those who answered "undecided/don't know" as a solution to the number one transportation issue in the Bishop area measured 14 percent and those who offered a suggestion not previously categorized ("other") were 10 percent. As previously stated, those who said "other" were analyzed and new categories were added to the frequency questionnaire along with the pre-developed categories. For specific responses remaining in the "other" category after review and recoding, please refer to the frequency tables included in the statistical report (in a separate document).




Opinions of solutions tended to vary by age, length of time lived in the Bishop Area, and income. An alternate route (bypass or truck route) was suggested by respondents who have lived in the area for more than 20 years, by older residents (55+), and by those earning $35,000 to $49,999. Younger residents (18-34), those who have lived in the area for five to ten years, and respondents in the $50,000 to $74,999 income category felt that the solution should be to make it safer for pedestrians and create more cycling options. Respondents who have lived in the area for five to ten years, those who were 35 to 54 years old, as well as interviewees earning less than $25,000 felt that parking should be improved. Persons residing in the area for 11 to 20 years, as well as those who were 35 to 54 years old, and persons making less than $25,000 were more likely to report “improve all public transportation” as a solution.

After being asked to rate the seriousness of various transportation issues, respondents were again asked if there were any solutions to those issues that they would suggest. This was asked as open-ended and responses were placed into pre-coded categories. Responses of “other” were analyzed to identify categories not previously included in the questionnaire.

Almost three in ten interviewees mentioned “bypass” (any type) as a solution (28 percent), followed by “create truck route” (23 percent), and “bring in passenger air service” with 12 percent. Those who answered “undecided/don’t know” as a solution measured 23 percent and those who said “other” were 8 percent. As previously stated, those who said “other” were analyzed and new categories were added to the frequency questionnaire along with the pre-developed categories. For specific responses remaining in the “other” category after review and recoding, please refer to the frequency tables included in the statistical report (in a separate document).

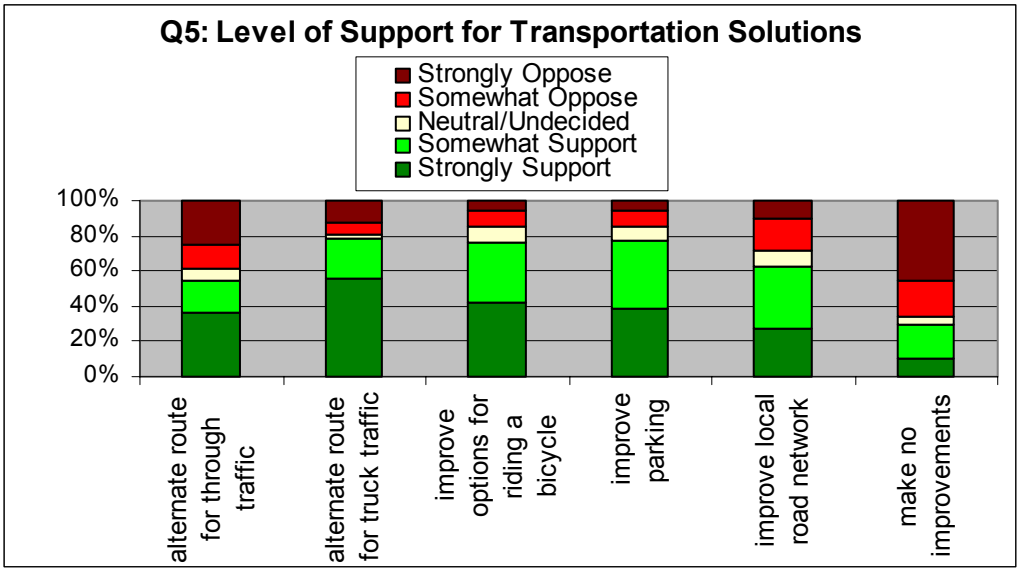



Solutions to transportation issues in the Bishop area tended to vary by area of residence, age, and length of time living in the Bishop area. Residents of West Bishop, those who have lived in the area for more than 20 years, and older residents (55+) were supportive of a bypass.

Solutions also varied by education level and number of times traveled on the highway (Q19). Interviewees in the “high school or less” group mentioned creating a truck route. Those who do not drive on Highway 395 (reported 0 one-way trips) were more likely to mention bringing in Greyhound or a train service for public transportation out of town as a solution when compared to those who do typically drive on Main St/Highway 395.

Respondents were also asked to rate their level of opposition or support of alternatives to handle local transportation issues such as: construct an alternate route for through traffic, construct an alternate route for truck traffic, improve the options for riding a bicycle, improve parking throughout the Bishop area, improve the local road network, and make no improvements.

The solution that was most strongly supported was "construct an alternate route for truck traffic" (55 percent). A distant second, although still showing strong support, was to "improve the options for riding a bicycle" (42 percent). Third in support was "improve parking throughout the Bishop area" (39 percent).




The suggested solution with the most opposition was to do nothing ("make no improvements"), with close to half the respondents (45 percent) strongly opposing this option. While not as high, strong opposition also existed for "construct an alternate route for through traffic" (25 percent), and "construct an alternate route for truck traffic" (13 percent).

When "strongly support" and "somewhat support" were combined and "strongly oppose" and "somewhat oppose" were combined to determine if the issue was either supported or opposed, the highest percentage of support was for constructing an alternate route for truck traffic (79 percent), followed by improving parking throughout the Bishop area (77 percent), and then improving the options for riding a bicycle (76 percent). The highest percentage in the opposition category was "make no improvements" (66 percent),

followed by "construct an alternate route for through traffic" (39 percent), and then "improve the local road network" at 29 percent.

*Table 3: Support or Opposition for Various Solutions to Transportation Issues**

| Solutions | Support (%) | Oppose (%) |
|---|---|---|
| Construct and alternate route for through traffic | 55% | 39% |
| Construct an alternate route for truck traffic | 78 | 19 |
| Improve the options for riding a bicycle | 76 | 15 |
| Improve parking throughout the Bishop area | 77 | 15 |
| Improve the local road network | 63 | 29 |
| Make no improvements | 29 | 66 |

** Totals may not sum to 100 percent due to rounding and not including "undecided."*

Both the mean and median for improving the options for riding a bicycle, improving parking, and improving the local road network were "somewhat support." The mean for constructing an alternate route specifically for truck traffic was "somewhat support," while the median was "strongly support." The mean for constructing an alternate route for through traffic was "neutral" but the median was "somewhat support." Both the mean and median for make no improvements was "somewhat oppose," which makes this the only option that did not have at least some degree of support.

Support for given solutions varied by age, race/ethnicity, gender, and those who drive alone or with others (Q17). Respondents aged 18 to 34, Hispanics/Chicanos/Latinos, and those who typically carpool were more supportive of improving the options for riding a bicycle in the Bishop area, while those aged 35 to 54, Native Americans, males, and those who typically drive alone were least supportive.

Improving parking was favored most by Hispanics/Chicanos/Latinos and by those whose primary mode of transportation was an automobile, while Native Americans favored it least. Those who typically drive alone were more likely to oppose constructing an alternate route for through traffic when compared to those who typically drive with others/carpool.

When comparing the three questions asking about solutions to local transportation issues, two open ended, one a scale based on rating of support or opposition, the top transportation issues do not coincide. When asked as open-ended the first time, respondents indicated a bypass as the number one solution, followed by improving the local transit/bus service and creating a truck route. When asked as open ended the second time, the top solution was still bypass, then the rankings changed with “create truck route” and lastly, “bring in passenger air service.”

Differences in these results could be due to the ordering of questions. The first open ended was asked in the beginning of the survey, directly after asking what the number one transportation issue was in the Bishop area (as open ended). The second time, solutions were asked in an open-ended format and were preceded by asking about the seriousness of various transportation issues that were identified to the respondent. The first open ended allows the respondent to think of the first suggestion that comes into their mind. By the time the second open-ended question is asked (about solutions), the respondent has been reminded of or various transportation issues have been suggested to him/her.

Construction of an alternate truck route was strongly favored by the highest percentage of respondents. Second in support was cycling improvements, followed by improved parking. When “somewhat support” and “strongly support” were combined and “somewhat oppose” and “strongly oppose” were combined to form two categories as those who said they either support or oppose it, most residents supported constructing an alternate route for truck traffic. Second in support was improving parking, followed by improving cycling options. Making no improvements was strongly opposed by the highest percentage of respondents, followed by constructing an alternate route for through traffic and improving the local road network.

The differences in these results could be due to the nature of the questions, two were asked open ended (first thing that comes to mind) and in different places of the questionnaire, the other was asked as a scale and the respondent was given the list of possible solutions. In addition, the two questions asked about alternative solutions to transportation issues in a slightly different way: the first two – asking the respondent to give solutions off the “top of their head,” the last – to rate their level of support to various

solutions given. Nevertheless, both measures are valid and both results should be considered. Common results that showed up between the three questions that should be addressed are a bypass – "construct an alternate route for truck traffic," "improve the options for riding a bicycle," and "improve parking throughout the Bishop area." Improvement in local public transit/bus service and passenger air service are also areas that should be explored.

Results to transportation issues and solutions in the Bishop area showed that there were several options that were supported but the community is divided on which issues and solutions to pursue. The survey did not conclusively point to one solution but has created areas to explore with local governments and public stakeholders to identify workable solutions.

On that same note, participants were asked how much they think truck traffic contributes to the transportation issues and congestion in the downtown area. The majority responded, "a lot" (53 percent), followed by "a little" (39 percent), then "not at all" (8 percent). This may provide some insight as to why an alternative route for truck traffic was a popular solution due to the perceptions/opinions of local residents concerning truck traffic.

The perception of truck traffic's contribution to congestion varied by age. Younger residents (18-34) were more likely to indicate "not a lot" and older residents (55+) were more likely to indicate "a lot" when asked if truck traffic contributes to local congestion.

Another area of concern or interest to Caltrans was to measure the tradeoff between having a pedestrian-friendly downtown and having a downtown friendly to the movement of traffic. Respondents were asked how supportive they would be if improving the movement of pedestrian travel downtown required decreasing the movement or diverting the flow of traffic through downtown (very supportive, supportive, or not supportive). Two in five (41 percent) of those who were interviewed indicated they were supportive of decreasing the movement or diverting the flow of traffic through downtown to improve pedestrian travel but about a third (35 percent) were not supportive. Combining the "supportive" and "very supportive" responses demonstrates that almost two-thirds (63 percent) have some degree of support for this action. Anglo/White respondents were

more likely to oppose this action while Hispanic/Chicano/Latino respondents were more likely to support it.

## *Out-of-Town Travelers*

In order to gain a better understanding of residents' knowledge and perception of out-of-town travelers, respondents were asked a series of questions concerning the following:

- The importance of out-of-town travelers to the economic livelihood of the Bishop area,
- The contribution of out-of-town travelers to congestion in the downtown area, and
- The amount of weight that should be given to the opinions of out-of-town travelers on transportation issues in the Bishop area.

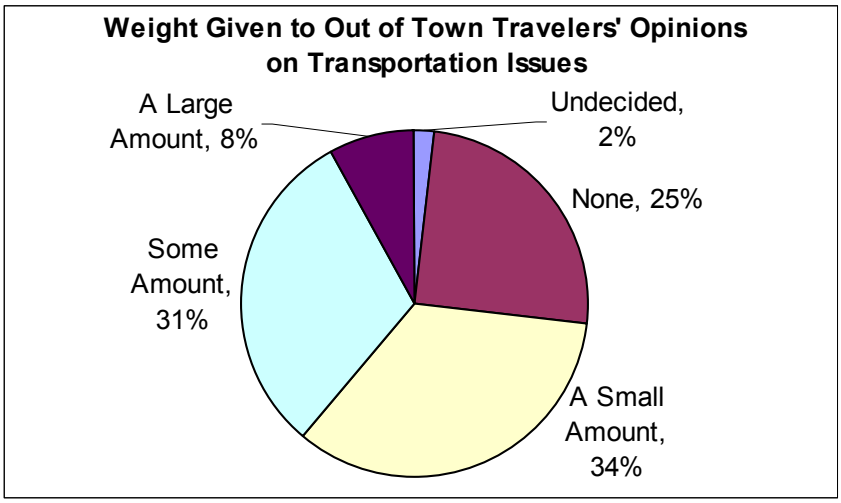
### Local Residents' Opinions

First, in order to get an indication of the perception of local residents regarding out-of-town travelers, respondents were asked about the importance of out-of-town travelers to the economic livelihood of the Bishop area. The vast majority of respondents (82 percent) considered out-of-town travelers "very important" to the economic livelihood of the area. Another 15 percent viewed them as "somewhat important".

However, when asked, "How much do you think out-of-town travelers contribute to transportation issues and congestion in the downtown area", 61 percent of those who were interviewed indicated "a lot." Another 34 percent said that out-of-town travelers contribute "a little" to transportation issues and congestion downtown. Respondents with a college degree were more likely to report "not a lot," while those with trade school or a two-year college degree were more likely to report "a lot."

Most residents felt that there should not be a large amount of weight given to the opinions of out-of-town travelers in the decision-making process on highway transportation issues in the Bishop area. One in four said that no weight should be given to the opinions of out-of-town travelers. About a third (34 percent) felt that "a small amount" of weight should be given to their opinions and those who said "some amount" of weight should be given was 31 percent. When combining all categories where a respondent mentioned that *any* weight should be given, 74 percent felt that the opinions of out-of-town travelers should have a

voice in the decision-making process on highway transportation issues in the Bishop area (to various degrees). Based on these results, a small amount of weight given to out-of-town travelers' opinions in the decision making process on highway transportation issues should be accepted by local residents.

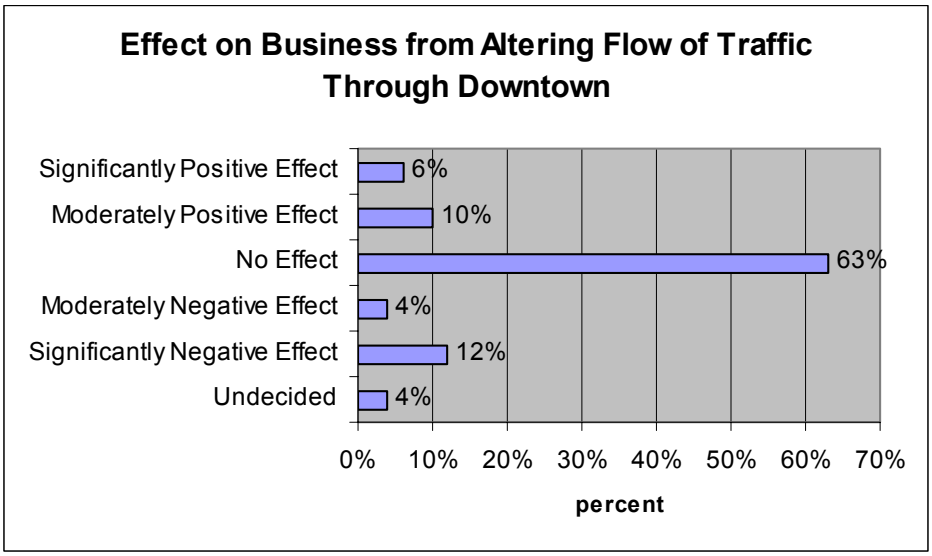



## Local Businesses' Opinions

Two questions were asked of businesses only; one regarding out-of-town travelers and one regarding the idea of diverting traffic from downtown. The first, "How dependent is your business on out-of-town travelers, such as truck traffic and recreational through traffic?" resulted in 60 percent (+/- 12%) of interviewees stating that their business was not dependent on out-of-town travelers. In contrast, 21 percent (+/- 10%) indicated their business was very dependent on out-of-town travelers and another 20 percent (+/- 9%) were somewhat dependent. The percentages reported above do not reflect a +/- 5% standard error since the sample size of businesses was very small (68). Confidence intervals for proportions were hand calculated for this question to more accurately reflect the population of businesses and are reflected in the parentheses above.

A separate survey of 400 businesses in the area is suggested to obtain results at the 95 percent confidence level. Furthermore, it may be interesting to separate dependence on truck traffic and dependence on recreational through traffic on a separate business survey or discussion at a town meeting since creating an alternate route for truck traffic was a solution strongly proposed and supported.

Businesses were mixed in their opinions of how altering the flow of traffic through downtown would affect their business. The most popular view (63 percent, +/- 11%) was that altering the flow of traffic through downtown would have no effect on their business. The next highest percentage was 12 percent (+/-8%) with a "significantly negative effect," followed by "moderately positive effect" at 10 percent (+/- 7%). Relatively few (4 percent) were unsure as to the potential effect. When "significantly" and "moderately" were combined for both negative and positive, the division was evenly split. Those who said it would have a negative effect were 16 percent and those who said it would have a positive effect were 16 percent. The percentages reported above do not reflect a +/- 5% standard error since the sample size of businesses was very small (68). Confidence intervals for proportions were hand calculated for this question to more accurately reflect the population of businesses and are reflected in the parentheses above.




The effect on business from altering traffic varied by area of residence, primary mode of transportation, and location of business. Respondents who lived on the Bishop Paiute Reservation had strong feelings about the effect on their business from altering the flow of traffic through downtown. Of businesses who said it would have a negative effect, the highest percentage was from those who lived on the Bishop Paiute Reservation (33.3 percent). Of businesses who said it would have a positive effect, the highest percentage was from those who lived on the Bishop Paiute Reservation (50 percent). Respondents who lived in other areas (in the Bishop area) were more likely to report no effect or be undecided. Residents who typically drive an automobile felt that altering traffic would have either a negative effect or no effect/undecided, while residents who typically use

other forms of transportation felt it would have a positive effect. Businesses on Highway 395/Main St/North Sierra Highway were more likely to oppose improving pedestrian travel by diverting traffic from downtown when compared to businesses in other locations. However, businesses within two blocks of Highway 395/Main St were more likely to be supportive of this action.

## *Typical Transportation Habits*

The great majority of those who were interviewed use an automobile as their primary mode of transportation (94 percent). Only 2 percent use a bicycle and another 2 percent use public transit/bus. Over half of respondents are solo drivers (64 percent). When asked if they ever use any other form of transportation, over half (52 percent) answered in the negative. Other transportation methods used (allowing for multiple responses) were biking (22 percent), and walking (21 percent).

Primary mode of transportation tended to vary by area of residence. West Bishop residents typically use an automobile. City of Bishop residents were more likely to use "all other" modes of transportation. Residents of all other areas (the smaller communities named in the questionnaire) do not use any other forms of transportation (Q18i); the same is true for older residents (55+).

Whether respondents typically drive alone or with others varied by age. Older residents (55+) more typically drive alone and younger residents (18 to 34) more typically drive with others or carpool.

Respondents were asked, "In a typical weekday, how many times do you travel on Main Street/Highway 395 in the Bishop area?" The interviewer was to enter the number of times the respondent travels on Highway 395 in one direction/one-way. About one in four respondents (27 percent) travel on the highway 2 one-way trips per weekday. The second most popular answer was 17 percent with 1 one-way trip per weekday, followed by 4 one-way trips per weekday at 14 percent. Over half of all interviewees (65 percent) travel on Highway 395 between 1 and 4 times (one-way). The mean number of one-way trips is 4.3 with a standard deviation of 4.5, a median of 3, and a mode of 2 one-way trips.

# IV. Appendices

## *Appendix A: Frequency Questionnaire*

Bishop Area Access & Circulation Study
Community Survey
Frequency Questionnaire

| | Methods: |
|---|---|
| Field Dates: | • Pretest: December 15, 2003<br>• Field Dates: December 16-22, 2003 |
| Sample Size: | • 407 completed interviews with Bishop Area residents |
| Sampling Error: | • +/- 4.9% (calculated at 95% confidence level) |
| Unit of Analysis: | • Household |
| Population: | • Adult residents of Bishop in area code 760, prefixes: 872, 873, & 387 |
| Screening: | • Resident of the study area for the Bishop Area Access & Circulation Study |
| Sampling Frame: | • Random-digit-dialing telephone sample |
| Average Length of Interview: | • 10:45 minutes |

***NOTE: This frequency questionnaire serves as only a preliminary report. Frequency percentages reported in this document represent adjusted frequencies, meaning that, unless otherwise indicated, percentages have been adjusted to account for any non-responses or not-applicable responses. Due to rounding, the totals of these percentages may be slightly above or below 100%.***

**• REQUEST •**

Hello, my name is _____ from Meta Research. We are interviewing Bishop Area residents about transportation issues in your area for the California Department of Transportation. Your opinions on these issues are very important to Caltrans and the Bishop community.

Would you have about 11 minutes (depending upon your answers) now for a brief confidential interview?

[IF NECESSARY, CONTINUE WITH: This is a public opinion survey, NOT SALES. Your answers will be summarized with other peoples' answers; results will not be reported individually.]

01) Yes {BEGIN SURVEY}
02) No {ARRANGE FOR A CALLBACK TIME}
99) Refusal {THANK & TERMINATE}

This call may be monitored for quality control purposes.

## • SCREENING QUESTIONS •

[ASK ALL RESPONDENTS]

S1: What community do you live in, in the Bishop area? [READ LIST BELOW]

| | Of all respondents |
|---|---|
| 01) Bishop Paiute ("Pie-Yoot") Reservation | 9.3 |
| 02) West Bishop | 26.3 |
| 03) Dixon Lane-Meadow Creek | 9.8 |
| 04) Rocking K | 0.7 |
| 05) Rocking W | 1.2 |
| 06) Starlight/Aspendale | 2.0 |
| 07) Wilkerson | 5.9 |
| 08) Highlands/Glenwood Mobile Home Park | 9.6 |
| 09) Roundvalley/Mustang Mesa/Paradise | 4.7 |
| 10) (The) City of Bishop (within the city boundaries), OR | 26.3 |
| 11) (The) Unincorporated area of Inyo County (please specify) | 4.2 |

S2: CODED, NOT ASKED: Interviewers Check Racial/Ethnic Targets

| | Of total sample |
|---|---|
| 01) Total Hispanic respondents needed: 28 (7%) | 6.6 |
| 02) Total Native American respondents needed: 32 (8%) | 7.6 |
| 03) Total Business respondents needed: 40 (10%) | 16.7 |

S3: CODED, NOT ASKED: Interview language

| | Of all respondents |
|---|---|
| 01) English | 100.0 |
| 02) Spanish | 0.0 |

## • TRANSPORTATION RELATED ISSUES •

First…

[ASK ALL RESPONDENTS]

01. What would you say is the number one transportation issue in the Bishop area? [PSEUDO OPEN ENDED: ASK AS OPEN-ENDED; CODE FIRST RESPONSE INTO APPROPRIATE CATEGORY; DO NOT PROMPT]

| CATEGORIES FOR CODING: | Of all respondents |
|---|---|
| 01) Congestion on Main Street/Highway 395 | 11.8 |
| 02) Too Many Trucks on Main Street/Highway 395 | 13.1 |
| 03) Congestion on West Line Street/Highway 168 | 1.2 |
| 04) Ability to Safely Ride A Bike Around Town | 1.0 |
| 05) Inadequate Parking | 3.2 |
| 06) Driving Behavior | 1.5 |
| 07) Need for Passenger Air Service | 3.4 |
| 08) Getting Around Town as a Pedestrian | 1.5 |
| 09) Inefficient Local Road Network (poor circulation/road connections) | 2.5 |
| 10) Local Transit/Bus Service | 20.7 |
| 11) Public Transportation Out Of Town | 3.0 |
| 12) Getting Out Of Town/To Other Cities/Getting Into Town | 2.0 |
| 13) Tourists | 1.0 |
| 14) Poor Condition of Roads | 1.5 |

| | |
|---|---|
| 15) Traffic Signals (too long of wait or lack of…) | 1.2 |
| 16) Traffic | 1.5 |
| 17) Dial-A-Ride | 1.0 |
| 18) Safety | 0.7 |
| 19) No Problems | 1.7 |
| 50) Other (please specify) | 7.6 |
| 97) Undecided/Don't Know [VOLUNTEERED; SKIP NEXT QUESTION] | 19.0 |

[ASK ALL RESPONDENTS]

02. Thinking about the [insert answer from previous question] issue, what, if any, solution would you suggest? [PSEUDO OPEN ENDED: ASK AS OPEN-ENDED; CODE FIRST RESPONSE INTO APPROPRIATE CATEGORY; DO NOT PROMPT.]

| CATEGORIES FOR CODING: | Of all respondents |
|---|---|
| 01) Bypass (any type) | 17.9 |
| 02) Create Truck Route | 10.9 |
| 03) Create More Cycling Options Throughout the City | 3.0 |
| 04) Improve Parking Throughout the City | 1.8 |
| 05) Improve the Local Road Network | 2.7 |
| 06) Make Downtown/Main Street Safer For Pedestrians | 1.8 |
| 07) Bring In Passenger Air Service | 5.2 |
| 08) Driver Education/Enforcement | 2.4 |
| 09) Traffic Calming | 0.9 |
| 10) Expand Use Of/Improve Dial-A-Ride Services | 1.8 |
| 11) Bring In Greyhound or Train Service/Pub Transit Out Of Town | 9.7 |
| 12) Improve Local Public Transit/Bus Service (routes, schedules) | 11.5 |
| 13) Repair/Maintain Roads | 0.9 |
| 14) Taxi-Service | 1.5 |
| 15) More Traffic Signals/Stops | 2.4 |
| 16) No Changes/No Problems | 1.5 |
| 50) Other (please specify) | 9.7 |
| 97) Undecided/Don't know [VOLUNTEERED] | 14.2 |

[ASK ALL RESPONDENTS]

03. I'm going to read you a list of transportation issues. Please rate the seriousness of each issue in the Bishop area as Very serious, Somewhat serious, or Not serious.

Of all respondents

| | Not Serious | Somewhat Serious | Very Serious | Undecided/ Don't Know |
|---|---|---|---|---|
| a. Congestion on Main Street/Highway 395 | 26.8 | 39.3 | 33.2 | 0.7 |
| b. Too Many Trucks on Main Street/Highway 395 | 27.3 | 31.0 | 40.8 | 1.0 |
| c. Congestion on West Line Street/Highway 168 | 47.7 | 32.4 | 17.7 | 2.2 |
| d. Ability to Safely Ride A Bike Around Town | 34.4 | 38.3 | 22.1 | 5.2 |
| e. Inadequate Parking | 43.0 | 33.9 | 22.9 | 0.2 |
| f. Driving Behavior | 51.4 | 35.6 | 12.0 | 1.0 |
| g. Lack of Passenger Air Service | 26.5 | 27.0 | 39.3 | 7.1 |
| h. Getting Around Town as A Pedestrian | 68.6 | 20.6 | 8.8 | 2.0 |
| i. Inefficient Local Road Network | 63.6 | 25.6 | 7.6 | 3.2 |
| j. Transit/Bus Service | 49.1 | 24.6 | 15.2 | 11.1 |

[ASK ALL RESPONDENTS]

04. What, if any, solutions to these issues would you suggest? [ASK AS OPEN-ENDED; CODE INTO APPROPRIATE SOLUTION] Anything else?

| | Of all respondents Mentioned |
|---|---|
| a. Bypass (any type) | 27.5 |
| b. Create Truck Route | 22.9 |
| c. Create More Cycling Options Throughout the City | 9.8 |
| d. Improve Parking Throughout the City | 8.6 |
| e. Improve the Local Road Network | 9.1 |
| f. Make Downtown/Main Street Safer For Pedestrians | 6.6 |
| g. Bring In Passenger Air Service | 11.8 |
| h. Driver Education/Enforcement | 6.9 |
| i. Traffic Calming (trees pulled out, streetscape, traffic circles…) | 2.7 |
| j. Widen Roads/More Lanes | 2.7 |
| k. Bring In Greyhound or Train Service/Pub Transit Out Of Town | 2.2 |
| l. Improve Local Public Transit/Bus Service (expand routes, schedules) | 4.4 |
| m. More Traffic Signals/Stops | 2.7 |
| n. No Changes/No Problems (1st response) | 1.0 |
| j. Other (please specify) | 8.4 |
| k. Undecided/Don't know [VOLUNTEERED] (only code if 1st response) | 23.3 |

[ASK ALL RESPONDENTS]

05. Several alternatives can be considered as a way to handle local transportation issues in the Bishop area. Please tell me if you Strongly Oppose, Somewhat Oppose, Somewhat Support, or Strongly Support each of the following:

Of all respondents

| | Strong. Oppose | Some. Oppose | Neutral | Some. Support | Strong. Support | Undec./ Don't Know |
|---|---|---|---|---|---|---|
| a. Construct an Alternate Route For Through Traffic | 24.6 | 14.3 | 3.4 | 18.7 | 36.4 | 2.7 |
| b. Construct an Alternate Route for Truck Traffic | 12.8 | 6.4 | 1.5 | 23.1 | 55.3 | 1.0 |
| c. Improve the Options for Riding A Bicycle | 5.4 | 9.8 | 4.7 | 34.6 | 41.8 | 3.7 |
| d. Improve Parking Throughout the Bishop Area | 5.7 | 9.6 | 5.4 | 38.3 | 38.8 | 2.2 |
| e. Improve Local Road Network (add to & connect roads) | 10.3 | 18.4 | 5.7 | 34.9 | 27.8 | 2.9 |
| f. Make No Improvements | 45.0 | 20.9 | 2.9 | 19.2 | 10.1 | 2.0 |

[ASK ALL RESPONDENTS]

06. If improving the movement of pedestrian travel downtown required decreasing the movement or diverting the flow of traffic through downtown, how supportive would you be? [READ CATEGORIES BELOW]

| | Of all respondents |
|---|---|
| 01) Not Supportive | 34.5 |
| 02) Supportive | 41.1 |
| 03) Very Supportive | 21.7 |
| 97) Undecided/Don't know [VOLUNTEERED] | 2.7 |

[ASK ALL RESPONDENTS]

07. How important do you think out-of-town travelers are to the economic livelihood of the Bishop area? Very, Somewhat, or Not important?

| | Of all respondents |
|---|---|
| 01) Not Important | 2.2 |

| | |
|---|---|
| 02) Somewhat Important | 14.5 |
| 03) Very Important | 82.3 |
| 97) Undecided/Don't know [VOLUNTEERED] | 1.0 |

[ASK ALL RESPONDENTS]

08. How much do you think truck traffic contributes to the transportation issues and congestion in the downtown area? [READ CATEGORIES BELOW]

| | Of all respondents |
|---|---|
| 01) Not At All | 7.6 |
| 02) A Little | 38.8 |
| 03) A Lot | 53.1 |
| 97) Undecided/Don't know [VOLUNTEERED] | 0.5 |

[ASK ALL RESPONDENTS]

09. How much do you think out-of-town travelers contribute to the transportation issues and congestion in the downtown area? [READ CATEGORIES BELOW]

| | Of all respondents |
|---|---|
| 01) Not At All | 4.2 |
| 02) A Little | 34.4 |
| 03) A Lot | 61.2 |
| 97) Undecided/Don't know [VOLUNTEERED] | 0.2 |

[ASK ALL RESPONDENTS]

10. How much weight should be given to the opinions of out-of-town travelers in the decision-making process on highway transportation issues in the Bishop area? [READ CATEGORIES BELOW]

| | Of all respondents |
|---|---|
| 01) None | 24.6 |
| 02) A Small Amount | 34.2 |
| 03) Some Amount | 31.4 |
| 04) A Large Amount | 8.4 |
| 97) Undecided/Don't know [VOLUNTEERED] | 1.5 |

Changing subjects slightly…

[ASK ALL RESPONDENTS]

11. Are you an Owner or a Manager of a business located in the Bishop Area?

| | Of all respondents |
|---|---|
| 01) Yes [CONTINUE] | 16.7 |
| 02) No [SKIP TO NEXT BLOCK] | 83.3 |
| 97) Undecided/Don't know [VOLUNTEERED, SKIP TO NEXT BLOCK] | 0.0 |

[ASK OF BUSINESSES]

12. What is the type of business? Is it a … [READ LIST BELOW]

| | Of all respondents |
|---|---|
| 01) Hotel or Motel | 0.0 |
| 02) Restaurant | 4.5 |
| 03) Fast Food | 0.0 |
| 04) Gas Station | 3.0 |
| 05) Sporting Goods | 0.0 |
| 06) Other Tourist or Recreation Business | 7.5 |
| 07) Other Retail | 13.4 |

| | |
|---|---|
| 08) Professional Services, OR | 17.9 |
| 09) Other Type of Business | 53.7 |
| 97) Undecided/Don't know [VOLUNTEERED] | 0.0 |

[ASK OF BUSINESSES]

13. Where is your business located? [READ LIST BELOW]

| | Of all respondents |
|---|---|
| 01) On Highway 395 (Highway Service)/Main Street | 23.5 |
| 02) On 395 North Sierra Hwy | 2.9 |
| 03) Within Two Blocks of Highway 395 | 27.9 |
| 04) Somewhere Else In the Bishop Area | 45.6 |
| 97) Undecided/Don't know [VOLUNTEERED] | 0.0 |

[ASK OF BUSINESSES]

14. How dependent is your business on out-of-town travelers, such as truck traffic and recreational through traffic? [READ LIST BELOW]

| | Of those responding |
|---|---|
| 01) Not Dependent | 60.3 |
| 02) Somewhat Dependent | 19.1 |
| 03) Very Dependent | 20.6 |
| 97) Undecided/Don't know [VOLUNTEERED] | 0.0 |

[ASK OF BUSINESSES]

15. Do you think altering the flow of traffic through downtown on Main Street would have a Negative effect, a Positive effect, or No effect on your business? [IF HAVE EITHER NEGATIVE OR POSITIVE EFFECT, FOLLOW UP WITH, "Would that be a Significant or Moderate effect?"]

| | Of those responding |
|---|---|
| 01) Significantly Negative Effect | 11.8 |
| 02) Moderately Negative Effect | 4.4 |
| 03) No Effect | 63.2 |
| 04) Moderately Positive Effect | 10.3 |
| 05) Significantly Positive Effect | 5.9 |
| 97) Undecided/Don't know [VOLUNTEERED] | 4.4 |

## • TRANSPORTATION HABITS •

Now I'm going to ask you some questions about your typical transportation habits…

[ASK ALL RESPONDENTS]

16. What is your primary mode of transportation?

| | Of all respondents |
|---|---|
| 01) Automobile | 93.9 |
| 02) Motorcycle/Moped [SKIP NEXT QUESTION] | 0.0 |
| 03) Bike [SKIP NEXT QUESTION] | 2.2 |
| 04) Walking [SKIP NEXT QUESTION] | 1.2 |
| 05) Public Transit/Bus [SKIP NEXT QUESTION] | 2.0 |
| 50) Other (please specify) | 0.5 |
| 97) Undecided/Don't know [VOLUNTEERED; SKIP NEXT QUESTION] | 0.2 |

[ASK OF AUTOMOBILE USERS]

17. Do you typically drive alone or with one or more other people?

| | Of those responding |
|---|---|
| 01) Drive Alone | 63.8 |
| 02) Drive with Others/Carpool | 34.6 |
| 97) Undecided/Don't know [VOLUNTEERED] | 1.6 |

[ASK ALL RESPONDENTS]

18. Do you ever use any other form of transportation? (IF YES, Which?)

| | Of all respondents<br>Mentioned |
|---|---|
| a. Automobile | 3.2 |
| b. Motorcycle/Moped | 2.0 |
| c. Bike | 22.1 |
| d. Walking | 21.4 |
| e. Public Transit/Bus | 7.6 |
| f. Dial-A-Ride | 1.0 |
| g. Airplane | 2.0 |
| h. Other (please specify) | 1.5 |
| i. No; Do Not Use Any Other Form Of Transportation | 52.3 |

[ASK ALL RESPONDENTS]

19. In a typical weekday, how many times do you travel on Main Street/Highway 395 in the Bishop area?
[NOTE TO INTERVIEWER: If respondent answers anything over "0" say: "We're looking for each time you travel on Main Street in one direction. So, would that be (INSERT NUMBER) one-way trips or (INSERT NUMBER) round-trips?"]

| | Of all respondents |
|---|---|
| 01) 0 (one way trips) | 3.4 |
| 02) 1-4 (one way trips) | 65.4 |
| 03) 5-9 (one way trips) | 19.5 |
| 04) 10-14 (one way trips) | 7.1 |
| 05) 15+ (one way trips) | 3.6 |
| 97) Undecided/Don't know [VOLUNTEERED] | 1.0 |

## • DEMOGRAPHICS •

Just a few more questions for statistical purposes. [IF NECESSARY, CONTINUE WITH: All responses are kept confidential. All government entities are legally required to gather this data to show that they are serving the public equitably].

[ASK ALL RESPONDENTS]

20. How long have you lived in the Bishop area? [READ LIST BELOW, IF NECESSARY]

| | Of all respondents |
|---|---|
| 01) Less Than 1 Year | 3.4 |
| 02) 1 - 4 Years | 11.3 |
| 03) 5-10 Years | 12.1 |
| 04) 11-20 Years, OR | 23.9 |
| 05) More Than 20 Years | 49.3 |

| | |
|---|---|
| 97) Undecided/Don't know [VOLUNTEERED] | 0.0 |

[ASK ALL RESPONDENTS]

21. Please stop me when I read the category that contains the highest level of education you have completed. . .. [READ CATEGORIES BELOW]

| | Of all respondents |
|---|---|
| 01) High School or Less | 22.2 |
| 02) Some College | 29.4 |
| 03) Trade or Vocational School | 6.9 |
| 04) Two-Year College Degree | 9.6 |
| 05) Four-Year College Degree | 19.8 |
| 06) Post Graduate Degree | 11.4 |
| 97) Undecided/Don't know [VOLUNTEERED] | 0.7 |

[ASK ALL RESPONDENTS]

22. Please stop me when I read the category that contains your age... [READ CATEGORIES BELOW]

| | Of all respondents |
|---|---|
| 01) 18-24 | 6.4 |
| 02) 25-34 | 9.4 |
| 03) 35-44 | 17.3 |
| 04) 45-54 | 20.8 |
| 05) 55-64 | 17.8 |
| 06) 65 and up | 28.0 |
| 97) Undecided/Don't know [VOLUNTEERED] | 0.2 |

[ASK ALL RESPONDENTS]

23. What is your racial or ethnic background? [READ CATEGORIES BELOW]

| | Of all respondents |
|---|---|
| 01) Anglo/White | 80.7 |
| 02) Hispanic/Chicano/Latino | 6.9 |
| 03) American Indian/Native American | 8.0 |
| 04) African American/Black | 0.0 |
| 05) Asian/Oriental/Pacific Islander | 0.3 |
| 50) Other | 2.1 |
| 97) Undecided/Don't know [VOLUNTEERED] | 2.1 |

One final question...

[ASK ALL RESPONDENTS]

24. Please stop me when I read the category that best describes your total household income from all sources before taxes in 2002… [READ CATEGORIES BELOW]

| | Of all respondents |
|---|---|
| 01) Less than $10,000 | 3.4 |
| 02) $10,000 to just under $25,000 | 17.3 |
| 03) $25,000 to just under $35,000 | 17.6 |
| 04) $35,000 to just under $50,000 | 14.5 |
| 05) $50,000 to just under $75,000 | 19.4 |
| 06) $75,000 to just under $100,000 | 10.9 |
| 07) $100,000 or more | 7.2 |
| 97) Undecided/Don't know [VOLUNTEERED] | 9.8 |

*That's the end of our survey. This has been a confidential interview conducted by _____ at Meta Research. Someone may call you from Meta to verify that this interview was conducted. May I please have just your first name? Thank you very much for your time and have a good evening*

25. Gender (NOT ASKED; CODED BY OBSERVATION)

| | Of all respondents |
|---|---|
| 01) Female | 54.5 |
| 02) Male | 45.5 |

# *Appendix B: Research Methods*

## RESEARCH METHODS

**JOB TITLE: Bishop Area Access and Circulation Study Public Opinion Survey**
**DATE: January 2004 (Calls Made in December of 2003)**

## Description of Project:

The California Department of Transportation, District 9, aims to improve the circulation and safety for all modes of transportation in the downtown area. This study was designed to evaluate people's awareness and perceptions of the project as well as provide an indication of their current transportation habits relative to the areas of interest.

Meta conducted research to address the following issues:

- Assess the public awareness/opinion of transportation issues and solutions in the Bishop area, concentrating on Main Street/Highway 395.
- Determine local residents' opinions of out-of-town travelers and their contribution to the local economy and to transportation issues.
- Assess the dependence of local businesses on out-of-town travelers and the potential effects on their business if traffic was diverted from downtown.
- Identify typical transportation habits of local residents.
- Ensure that business owners or managers, Hispanic respondents, and Native American respondents were accurately represented in the sample.

## Method

To meet these objectives, Meta Research worked collaboratively with Caltrans staff to define the sampling regime and the questionnaire simultaneously. One survey was used for all residents and information was collected on two separate issue areas:

- Transportation Related Issues
- Transportation Habits

The questionnaire included questions that address the written objectives for the study. Most of the questions were asked in a closed-ended format. Four questions were asked in an open-ended format, for which verbatim responses were captured and categorized for quantitative analysis. Transcripts of the verbatim responses are provided in the final

statistical report (under a separate cover).

All telephone interviews were conducted using a computer-assisted telephone interviewing (CATI) system.

META RESEARCH

# Memo: Call Center Protocol

TO: Caltrans District 9, Bishop, CA
FROM: Meta Research, Sacramento, CA
DATE: February 2, 2004

SUBJECT: Call Center Protocol

U.S. Field Research was contracted by Meta Research for data collection on the Bishop Area Access and Circulation Study. Caltrans, Jones & Stokes, and Meta Research collaborated on how targets could be met to obtain a representative sample of Hispanic, Native American, and business owners or managers for this study without creating a perceived injustice by screening other qualified respondents from taking the survey. The decision was made to over-sample if targets for these groups were low rather than using race/ethnicity as a screening question. The purpose of this was to allow all potential respondents the chance to share their input about local transportation issues and not "turn anyone away." It was felt by Caltrans that the potential negative consequences of "screening someone out" would be detrimental to their community outreach efforts.

As the data collection was nearing completion, it became apparent that Hispanic and Native American respondents were lacking in number. U.S. Field Research made an executive decision to move the race/ethnicity question from the demographics section of the questionnaire to create a second screening question at the beginning of the questionnaire so that the targets could be met.

At the beginning of the evening on Monday, December 22, 2003, the call center had completed 369 interviews, including 11 Hispanic and 24 Native American (the targets had been 400 complete interviews, including 28 Hispanics and 32 Native Americans). Response from Native Americans was slightly low but Hispanic response was very low. The call center began calling as directed using the random digit dialing of the last four digits of the telephone number and *without* any screening for race/ethnicity until they reached 395 completed interviews.

At that time, in an effort to reach the targets, they moved the race/ethnicity question (Q23) up to the front and used it as a screening question. It was placed after the introduction and before the community of residence screening question (S1). After going through the introduction, *both* the race/ethnicity screen and the community of residence screen where asked. If it was determined that the interviewee did not fit the profile needed to reach the desired target, they were politely thanked and the interview was terminated. The script used to decline an interview was, "We very much appreciate your time and participation. However, due to our research protocol, our target for this category has been filled. Thank you."

The typical screening procedure is to ask at least two screening questions prior to terminating. In this case, with the disqualifying ethnicity screen placed before the community residence screen, respondents probably assumed that they were disqualified due to their residence. The intent is that one cannot be certain which question disqualified them. After U.S. Field Research began using the race/ethnicity screen, another 21 interviews were completed to meet the targets. The final count was 416 total interviews completed, including 28 Hispanics and 31 Native Americans.

The call center is not able to state exactly how many calls were attempted after implementing the screening question. Therefore, there is no way to know how many people were screened from taking the survey. U.S. Field Research said that the pace was such that they probably screened out two to three people for each complete interview. Consequently, it is our best estimate that between 42 and 63 people were screened out to complete the process.

In assessing the actions taken by U.S. Field Research, Meta Research and Jones & Stokes have discussed what might have been done differently to prevent this from occurring: 1) Meta Research to maintain tighter control over U.S. Field Research – checking in with them as the survey drew closer to completion to confirm that they would continue to implement the call center protocol and; 2) Jones & Stokes to check in with Caltrans as it became clear that the targets were not going to be met to confirm that the protocol should be continued or modified.

Meta Research has subsequently had discussions with US Field Research management and both firms have agreed to implement stricter protocols. While procedural protocol was not followed exactly as Caltrans had desired, the result is statistically valid and therefore can be used to make generalizations to the entire Bishop Area population. In fact, a superior sample was attained compared to if the call center had over-sampled and still not met the targets. It is statistically better to have a sample size of at least 400 for a 95 percent confidence level that includes a representative sample of Hispanic and Native American respondents. These groups were shown to have low response rates as of December 22, 2003, so increasing the sample size to include more of these types of respondents still would not change their percentage within the total sample. These groups, as shown by 2000 census data, are the second and third largest population of residents in the Bishop area and therefore are very important to the decision making process on transportation issues.

## Field Dates

- Training & Pretesting: December 15, 2003
- Telephone Fieldwork: December 16- December 22, 2003

## Client Contact[3]

- Forest Becket
  California Department of Transportation, District 9
  500 S. Main Street
  Bishop, CA 93514
  (760) 872-0735

## Client Contact

- Melinda Posner
  Jones and Stokes
  (916) 737-3000 voice
  (916) 737-3030 fax
  mposner@jsanet.com

## Meta Research, Inc. Contacts

- Stephen Murrill, Principal
  (916) 325-1223 voice; (916) 325-1224 fax

## Client Responsibilities

- Provided input for sampling design
- Provided input for questionnaire design
- Approved questionnaire

## Meta Research, Inc. Responsibilities

- Developed research design
- Designed questionnaire
- Prepared questionnaire for fieldwork
- Conducted computer analysis
- Prepared final statistical report
- Prepared written summary

## Population

- Bishop area residents

## Screening Criteria

- Adults who live in the Bishop area communities of: the Bishop Paiute Reservation, West Bishop, Dixon Lane-Meadow Creek, Rocking K, Rocking W, Starlight/Aspendale, Wilkerson, Highlands/Glenwood Mobile Home Park, Roundvalley/Mustang

[3] Contact person refers to the person who had the authority to sign off on any and all changes in the questionnaire and project specifications.

Mesa/Paradise, Bishop, and other areas of Inyo County within the study area boundaries

## Sampling Frame

- Random-digit-dial (RDD) telephone sample (last 4 digits of telephone number) of residents of the Bishop area in area code 760 with prefix 872, 873, and 387

## Sample Size & Sampling Error

- 416 interviews were completed with residents of the Bishop area, 407 interviews were used for analysis
- The target for the following groups were: business respondents – 40, Hispanic respondents – 28, and Native American respondents – 32
- Sampling error was +/- 4.9% (at the 95% confidence level)

## Questionnaire

- Interview length across the RDD sample and volunteers averaged 10:45 minutes
- Not all questions were asked of all respondents

- 1 screening question was asked
- 24 survey questions asked
- 2 questions coded by computer
- 1 question was coded by observation
- 28 total questions
- 4 questions asked in an open-ended format

## Client Identification During Interview

Meta identified the client at the beginning of the survey as the California Department of Transportation

## Meta Staff Assigned to Project:

- Stephen Murrill, Principal
- Shannon Wheelan, Research Analyst
- Patricia Jenkinson, Senior Research Consultant
- Trained interviewers and supervisors

## Data Analysis

- Univariate analysis for all questions
- Bivariate and multivariate analysis used for some questions
- Data analysis with SPSS software

## Report

- Written summary of results (with graphics)
- Questionnaire with frequencies
- Frequency tables
- Crosstabulation tables
- Open-ended transcript report
- Description of research methods

## Preservation of Data

- Raw data will be saved on computer tape for a one (1) year period.
- Statistical tables will be saved on computer tape for thirty (30) days for replication purposes.
- Hard copy of data (response sheets, etc.) will be destroyed after ninety (90) days unless client requests otherwise in writing.
- Meta Research, Inc. files (i.e. documents, papers, records, etc.) will be maintained for thirty (30) days unless client requests otherwise in writing. If additional maintenance is requested, a storage fee will be assessed.
- Meta Research, Inc. recognizes that all sampling frames (lists) are the property of client and will not be used for any purpose other than as noted in this document. Meta Research, Inc. will destroy sample within thirty (30) days unless client requests otherwise in writing.
- Meta Research, Inc. will retain one (1) hard copy of final report binder.
- Under no circumstances will Meta Research, Inc. violate respondent confidentiality by providing data that could positively link individual answers with individual respondents.
- Copies of original documents will be supplied to client at an additional cost. Meta Research, Inc. will maintain original documents in its files.

## Data Release

- Meta Research, Inc. will release only to contact person(s). No exceptions will be made without prior written notification from contact person(s).
- Inquiries from press and/or other organizations will be referred to client. However, Meta Research, Inc. reserves the right to acknowledge that a survey was or is being conducted. If requested (orally or in writing), Meta Research, Inc. will be available for press conferences and/or interviews.
- Meta Research, Inc. reserves the right, however, to publicly correct any misrepresentation, misinterpretation, or fabrication of results.